

WHAT IS CLAIMED IS:

1. A method for producing an organic thin film device comprising the steps of: making an organic thin film of a transfer material face a substrate, said transfer material having said organic thin film on a temporally substrate;

5 decompressing a space between said transfer material and said substrate to bring said transfer material in contact to said substrate; heating at least said organic thin film; and peeling said temporary substrate from said organic thin film to transfer said organic thin film to said substrate.

10 2. The method for producing an organic thin film device according to claim 1, wherein said method comprises the steps of: placing a mask having a plurality of openings in a minute pattern between said transfer material and said substrate; decompressing spaces in said openings between said transfer material and said substrate to bring said transfer material in contact to said substrate; heating at least said organic thin film; and peeling said temporary substrate from said organic thin film to transfer said organic thin film to said substrate in said minute pattern.

15 3. The method for producing an organic thin film device according to claim 2, wherein said openings are tapered from the transfer material side to the substrate side.

20 4. The method for producing an organic thin film device according to claim 2, wherein said mask has an aperture connected with said openings and said spaces are decompressed through said aperture.

25 5. The method for producing an organic thin film device according to claim 4, wherein said aperture comprises recesses provided on the bottom of said mask.

6. The method for producing an organic thin film device according to claim 2, wherein said mask is made of a material selected from the group consisting of metals, glasses, ceramics and heat resistant resins.

7. The method for producing an organic thin film device according to claim

2, wherein each of a blue light-emitting organic thin film, a green light-emitting organic thin film and a red light-emitting organic thin film is transferred to said substrate in a minute pattern to provide a light-emitting organic thin film comprising pixels of blue, green and red arranged repeatedly.

5 8. The method for producing an organic thin film device according to claim 1, wherein said organic thin film device comprises a light-emitting organic thin film or a carrier-transporting organic thin film.

9. The method for producing an organic thin film device according to claim 8, wherein said organic thin film device comprises a hole-transporting organic
10 thin film, a light-emitting organic thin film and an electron-transporting organic thin film disposed in this order from the substrate side.

10. The method for producing an organic thin film device according to claim 8, wherein said light-emitting organic thin film comprises pixels of blue, green and red arranged repeatedly.

15 11. The method for producing an organic thin film device according to claim 1, wherein said substrate comprises a support and a transparent electrically conductive layer disposed on said support.

12. The method for producing an organic thin film device according to claim 1, wherein said organic thin film is heated at 40 to 200 °C.

20 13. The method for producing an organic thin film device according to claim 1, wherein said organic thin film is provided on said temporally substrate by a wet method.

14. A method for producing an organic thin film device, wherein a laminate of a plurality of continuous or patterned organic thin films is provided on a
25 substrate by repeating a peeling-transfer process comprising the steps of: making an organic thin film of a transfer material face said substrate, said transfer material having said organic thin film on a temporally substrate; bringing said transfer material in contact to said substrate; heating at least said organic thin film; and peeling said temporary substrate from said organic thin film to transfer

said organic thin film to said substrate.

15. The method for producing an organic thin film device according to claim 14, wherein said transfer material is brought in contact to said substrate while decompressing a space between said transfer material and said substrate.

5 16. The method for producing an organic thin film device according to claim 14, wherein each of a blue light-emitting organic thin film, a green light-emitting organic thin film and a red light-emitting organic thin film is transferred to said substrate in a minute pattern to provide a light-emitting organic thin film comprising pixels of blue, green and red arranged repeatedly.

10 17. The method for producing an organic thin film device according to claim 14, wherein said organic thin film device comprises a light-emitting organic thin film or a carrier-transporting organic thin film.

18. The method for producing an organic thin film device according to claim 17, wherein said organic thin film device comprises a hole-transporting organic thin film, a light-emitting organic thin film and an electron-transporting organic thin film disposed in this order from the substrate side.

19. The method for producing an organic thin film device according to claim 17, wherein said light-emitting organic thin film comprises pixels of blue, green and red arranged repeatedly.

20 20. The method for producing an organic thin film device according to claim 14, wherein said substrate comprises a support and a transparent electrically conductive layer disposed on said support.

21. The method for producing an organic thin film device according to claim 14, wherein said organic thin film is heated at 40 to 200 °C.

25 22. The method for producing an organic thin film device according to claim 14, wherein said organic thin film is provided on said temporally substrate by a wet method.

23. A method for producing an organic thin film device comprising the steps of: making a light-emitting organic thin film comprising patterned pixels of

blue, green and red of a transfer material face a substrate, said transfer material having said light-emitting organic thin film on a temporally substrate; bringing said transfer material in contact to said substrate; heating at least said light-emitting organic thin film; and peeling said temporary substrate from said light-emitting organic thin film to transfer said light-emitting organic thin film to said substrate.

24. The method for producing an organic thin film device according to claim 23, wherein said transfer material is brought in contact to said substrate while decompressing a space between said transfer material and said substrate.

25. The method for producing an organic thin film device according to claim 23, wherein said organic thin film device comprises a hole-transporting organic thin film, said light-emitting organic thin film and an electron-transporting organic thin film disposed in this order from the substrate side.

26. The method for producing an organic thin film device according to claim 23, wherein said substrate comprises a support and a transparent electrically conductive layer disposed on said support.

27. The method for producing an organic thin film device according to claim 23, wherein said light-emitting organic thin film is heated at 40 to 200 °C.

28. The method for producing an organic thin film device according to claim 23, wherein said light-emitting organic thin film is provided on said temporally substrate by a wet method.

29. A transfer material comprising a temporary substrate and a light-emitting organic thin film provided on said temporary substrate, said light-emitting organic thin film comprising patterned pixels of blue, green and red.